

MALEK, P.; KOL¹⁹⁸, ~~Yr.~~ [Kolo, J.]

Antibiotics of the base type and heparin. Antibiotiki 5 no.6:10-14
N-D '60. (MIRA 14:3)

1. Institut klinicheskey i eksperimental'noy khirurgii, Praga,
Chekhsalovakiya.

(ANTIBIOTICS)

(HEPARIN)

MALEK, P.; KOLC, J.

Effect of fractures on the distribution of tetracycline in the bone. Acta chir.orthop.traum.czech. 27 no.5:396-404 0 '60.

1. Ustav klinické a experimentální chirurgie, Praha - Krc
(FRACTURES exper)
(TETRACYCLINE metab)
(BONE AND BONES metab)

MALEK, P.; KOLO, J.

Fluorescence method in the study of chlortetracycline penetration into the tissue. Cas.lek.cesk 99 no.29:924-927 15 J1'60.

1. Ustav Klinicke a experimentalni chirurgie, Praha-Kro, prednosta prof.dr. B. Spacek.

(CHLORTETRACYCLINE pharmacol)

KRIEDEL, F.; MALEK, P.; BELAN, A.; KOLC, J.

Lymphography of chronic progressive polyarthritis. Rev. Czech. med.
7 no.2:87-99 '61.

1. Research Institute for Rheumatic Diseases, Prague. Director: Prof.
F. Lencok, M. D. Institute for Clinical and Experimental Surgery,
Prague. Director: Prof. B. Spacek, M. D.

(LYMPHATIC SYSTEM radiography)
(ARTHRITIS diagn)

KRIEGL, F.; MALEK, P.; BELAN, A.; KOLC, J.

Chronic progressive polyarthritis in the lymphographic picture.
Cas.lek.cesk 100 no.3:65-72 20 Ja '61.

1. Vyskumny ustav chorob revmatickych, Praha, reditel prof. MUDr.
Fr. Lencok; Ustav klinicke a experimentalni chirurgie, Praha-Kru,
reditel prof. MUDr. B. Spacek.

(ARTHRITIS RHEUMATOID radiog)
(LYMPHATIC SYSTEM radiog)

MALEK, P.; KOLC, J.; ZAK, F.; PAVLIK, F.

The distribution of tetracycline antibiotics in the tissue of the kidneys in physiological and some pathological conditions. Cas.lek. cesk 101 no.7:193-198 16 F '62.

1. Ustav klinicka a experimentalni chirurgie, Praha-Krc, reditel prof. dr. B. Spacek, II. patologickoanatomicky ustav KU v Prase, prednosta prof. dr. V. Jedlicka.

(TETRACYCLINE metabolism)
(KIDNEY metabolism)
(KIDNEY DISEASES metabolism)

MALEK, P.; KOLC, J.; ZASTAVA, VI.; ZAK, F.; PELESKA, B.

Fixation of tetracycline antibiotics in the focus of myocardial infarct.
Cas. lek. cesk. 101 no.32/33:981-984 17 Ag '62.

I. Ustav klinicke a experimentalni chirurgie v Praze, reditel prof.
dr. B. Spacek. -- II. patologickoanatomicky ustav KU v Praze, prednosta
prof. dr. V. Jedlicka.

(TETRACYCLINE)

(MYOCARDIAL INFARCT)

MALEK, P.; DOBRKOVSKY, M.; ZASTAVA, V.; KOLC, J.

The proposed use of tetracycline antildotics for the evaluation of the degree of burns. Acta chir. plast. 5 no.1:48-56 '63.

1. Institute for Clinical and Experimental Surgery, Prague (Czechoslovakia)
Director: Prof. B. Spacek, D. Sc. The Burns Unit of the Clinic of Plastic
Surgery, Prague Chief: Academician F. Burian.
(CHLORTETRACYCLINE) (BURNS) (DIAGNOSIS)

MALEK, P.; ROKOS, J.; KOJECKY, Z.; KOLC, J.; PROCHAZKA, P.; ZAK, P.

The special role of tetracycline antibiotics in the prevention and therapy of acute pancreatitis. Rozhl. chir. 42 no.3:174-180 Mr '63.

1. Ustav klinické a experimentální chirurgie v Praze, reditel prof. dr. B. Spacek DrSc. II vnitřní klinika lékařské fakulty PU v Olomouci Biologický ústav CSAV v Praze, reditel akademik I. Malek. II patologickoanatomický ústav lek. fak. KU v Praze, přednosta prof. dr. V. Jedlicka.

(PANCREATITIS) (TETRACYCLINE) (LIPASE)
(ENZYME INHIBITORS) (CHLORTETRACYCLINE)

MALEK, P.; ZASTAVA, VL.; KOLC, J.; KOCANDRLE, V.; DOBRKOVSKY, M.

On the problem of the diagnostic use of tetracycline antibiotics. Rozhl. chir. 42 no.3:155-160 Mr '63.

1. Ustav klinické a experimentální chirurgie v Praze, reditel prof. dr. B. Spacek, DrSc. Oddel. popalenin kliniky plastické chirurgie lékařské fakulty hygienické KU v Praze, prednosta akademik P. Burian.

(TETRACYCLINE) (NEOPLASM DIAGNOSIS) (ISCHEMIA)
(NECROSIS) (INFLAMMATION) (BURNS)
(MYOCARDIAL INFARCTION) (FLUORESCENCE)

MALEK, P.; KOLC, J.; ZAK, P.

Distribution of tetracycline antibiotics in the body in shock states. Rozhl. chir. 42 no.3:187-191 Mr '63.

1. Ustav klinické a experimentální chirurgie v Praze, reditel prof. dr. B. Spacek, DrSc. II patologickoanatomický ústav fakulty všeobecného lékařství KU v Praze, prednosta prof. dr. V. Jedlicka.

(TETRACYCLINE) (SHOCK, TRAUMATIC) (MICE)
(RABBITS) (DOGS) (SHOCK, HEMORRHAGIC)
(CHLORTETRACYCLINE) (OXYTETRACYCLINE)

SURIN, V.; KOLC, J.

Penetration of chlortetracycline into joints changed by inflammation. Rozhl. chir. 42 no.3:192-195 Mr '63.

1. Chirurgické oddelení OUNZ v Benesove, vedoucí MUDr. V. Paltyn. Ústav klinické a experimentální chirurgie v Praze, reditel prof. dr. B. Spacek, DrSc.

(CHLORTETRACYCLINE) (STAPH INFECTIONS)
(ARTHRITIS) (HYALURONIDASE)
(EXUDATES AND TRANSUDATES)

MALEK, P.; DEMELOVA, J.; ZASTAVA, V.; KOLC, J.

Problems of tetracycline antibiotics in the prevention and treatment of experimental gas gangrene. Rozhl. chir. 42 no.3: 196-200 Mr '63.

1. Ustav klinické a experimentální chirurgie v Praze, reditel prof. dr. B. Spacek, DrSc. Ustav ser a cökovaciöh latek v Praze, reditel dr. J. Malek.

(GAS GANGRENE) (CHLORTETRACYCLINE)
(ISCHEMIA) (MUSCLES) (WOUNDS AND INJURIES)

MALEK, P.; ZASTAVA, Vl.; KOLO, J.; ZAK, Fr.

On the possible diagnosis of malignant tumors by means of tetracycline antibiotics. Cas. lek. cesk. 102 no.1:16-20 4 Ja '63.

1. Ustav klinické a experimentální chirurgie v Praze, reditel prof.
dr. B. Spacek, DrSc. — II patologickoanatomický ústav fakulty všeobecného
lékařství KU v Praze, přednosta prof. dr. V. Jedlička, DrSc.
(NEOPLASMS) (TETRACYCLINE) (DIAGNOSIS)

ZAK, F.; MALEK, P.; ZASTAVA, V.; KOLC, J.

On the problem of prolonged retention of tetracycline antibiotics in the body in pathological states. Cas. lek. cesk. 102 no.32/33:902-906 16 Ag '63.

1. II. patologickeoanatomicky ustav fakulty vseobecneho lekarstvi
KU v Praze, prednosta prof. dr. V. Jedlicka Ustav klinicke
a experimentalni chirurgie v Praze, reditel prof. dr. B. Spacek.
(TETRACYCLINE) (CALCIFICATION) (CALCULI)
(MUSCLES) (MYOCARDIUM)

MALEK, P.; HAMMER, J.; ZASTAVA, V.; PISA, Z. Technical assistance: KOLC, J.
GRAFNETTER, D.

The diagnostic significance of fixation of tetracycline anti-
biotics in infarcted myocardium. Cor vasa 7 no.2:125-130 '65.

1. Institute for Clinical and Experimental Surgery and Institute
for Cardiovascular Research, Prague, Czechoslovakia.

ZASTAVA, V.; KOLC, J.; HELAN, A.

Chlortetracycline fluorescence in the myocardium damaged by temporary occlusion of the coronary artery. Rozhl. chir. 44 no.5:295-298 My'65.

1. Ústav klinické a experimentální chirurgie v Praze (reditel: prof. dr. B. Spacek, DrSc.).

SURIN, V., MUDr., CSc.; KOLC, J.

Use of tetracycline antibiotics in the investigation of various pathophysiological processes in bony tissue. Rozhl. chir. 44 no.5:315-320 My'65.

1. Ústav klinické a experimentální chirurgie v Praze (ředitel: prof. dr. B. Špaček, DrSc) Ortopedické oddělení Obvodního ústavu Národního zdraví v Benesově (ordinar: MUDr. V. Surin, CSc.).

KOCANDRLE, V.; KOLC, J.

The distribution of various antibiotics after direct intralymphatic administration. Rozhl. chir. 44 no.5:340-343 My'65.

1. Ústav klinické a experimentální chirurgie v Praze (ředitel: prof. dr. B. Spacek, DrSc.).

BELAN, A.; KOLC, J., technicka spoluprace BUFKA, L.

Experimental proof of various forms of lymphovenous anastomoses.
Roshl. chir. 44 no.5:344-347 My'65.

1. Ustav klinicke a experimentalni chirurgie v Praze (reditel:
prof. dr. B. Spacek, DrSc.).

MALEK, P.; KOLC, J.; ZASTAVA, V.

Tetracycline antibiotics, and calciphylaxis. Cas. lek. cesk.
104 no.12:333-335 26 Mr'65.

1. Ustav klinické a experimentální chirurgie, Praha-Krc, (reditel:
prof. dr. B. Spacek, DrSc.).

PROCHAZKA, P.; ROKOS, J.; ZASTAVA, V.; KOLC, J.

Localization and uptake of chlortetracycline in the pancreas.
Cas. lek. cesk. 104 no.27/28:743-744 9 J1 '65.

1. Mikrobiologický ústav Československé akademie věd v Praze
(ředitel akademik I. Malek) a Ústav klinické a experimentální
chirurgie v Praze (ředitel prof. dr. B. Spacek, DrSc.).

MALEK, P.; HAMMER, J.; ZASTAVA, V.; Pisa, Z.; KOLC, J.; GRAFFNETER, D.

Experimental models of myocardial infarction without opening of the thorax and tetracyclines. Cas. lek. cesk. 104 no.36: 986-990 10 S '65.

1. Ustav klinické a experimentální chirurgie v Praze (reditel prof. dr. B. Spacek, DrSc.) a Ustav pro výzkum chorob oběhu krevního v Praze (reditel prof. dr. J. Brod, DrSc.). Submitted September 1964.

CZECHOSLOVAKIA

ZACHAL, M; KOLC, J; SOUK, F

Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences - (for all)

Prague, Collection of Czechoslovak Chemical Communications
No 1, January 1974, pp 212-213

"Synthesis of δ - α - and δ - β -vaccines."

Cardiovascular Diseases

CZECHOSLOVAKIA

UDC 616.127-005.4-079.2

MALEK, P.; VAVREJN, B.; RATUSKY, J.; KOLC, J.; KRONRAD, L.;
Institute of Clinical and Experimental Surgery (Ustav Klinicke a
Experimentalni Chirurgie), Prague - Krc, Director (Reditel) Prof
Dr B. SPACEK; Research Institute for Medical Application of Radio-
isotopes (Vyzkumny Ustav pro Vyuziti Radicizotopu v Lekarstvi),
Prague, Director (Reditel) Dr B. VAVREJN; Institute of Organic
Chemistry and Biochemistry, Czechoslovak Academy of Sciences
(Ustav Organicke Chemie a Biochemie CSAV), Prague, Director (Re-
ditel) Member of Academy F. SORM; Institute of Nuclear Research
(Ustav Jaderneho Vyzkumu) Rez near Prague, Director (Reditel) Dr
V. SVAB.

"Further Advances in Topical Diagnosis of Ischemic Lesions of
the Myocardium in Vivo."

Prague, Casopis Lekarů Ceských, Vol 105, No 47, 25 Nov 66, pp
1273 - 1278

Abstract /Authors' English summary modified/: For the diagnosis
of ischemic lesions mercury derivatives of the fluorescein line
(Hg 203 or Hg¹⁶⁷) are recommended. These derivatives have better
RI and RII indexes (torn to normal muscle, torn muscle to blood)

KOLETAT, M-

KOLCAVA, Miroslav, RUDr PhDr.; ZOUBEK, Ratmir, MUDr.

Penicillin concentration in conjunctival sac after instillation.
Cesk. oft. 13 no.5:343-348 Sept 57.

1. Ústřední mikrobiologická laborator a oční klinika VLA J. E. P.
v Hradci Králové.

(PENICILLIN,

concentration in conjunctival sac after instillation (Cs))

(CONJUNCTIVA

penicillin concentration in conjunctival sac after
instillation (Cs))

ROL CTVII / HIRCO-9V

SEVOIK, Vojmir; VYMOLA, Frantisek; KOLOVA, Miroslav; KROO, Michal

Postoperative staphylococcal enterocolitis. I. Hoshl. chir. 36 no.11:
772-781 Nov 57.

1. Klinika, fakultni chirurgie, ustredni mikrobiologicka laborator,
klinika neurochirurgicka VIA JEvP v Hradci Kralove.

(COLITIS, etiol. & pathogen.

Micrococcus pyogenes in postop. colitis, ther. neomycin &
1-sulfanilyl-2-thiourea-2-amino-p-toluene-sulfonamide sale(Cs))

(MICROCOCCAL INFECTIONS, ther.

Neomycin & 1-sulfanilyl-2-thiourea-2-amino-p-toluene-
sulfonamide salt in postop. colitis (Cs))

(NEOMYCIN, ther. use

postop. colitis caused by Micrococcus pyogenes, with 1-
sulfanilyl-2-thiourea-2-amino-p-toluene-sulfonamide salt(Cs))

(SULFONAMIDE MIXTURES, ther. use

1-sulfanilyl-2-thiourea-2-amino-p-sulfonamide salt in postop.
colitis caused by Micrococcus pyogenes, with neomycin (Cs))

ZOUBEK, Ratmir; KOLGAVA, Miroslav

Penicillin & neomycin levels in the conjunctival sac. Cesk. ofth. 14
no.5:359-364 Oct 58.

1. Oční klinika, přednosta prof. MUDr. Milos Klima, Ústřední mikro-
biologická laborator, přednosta MUDr. Frantisek Vymola, VIA J. Bv.
P. v Hradci Králové.

(CONJUNCTIVA, metab.

penicillin & neomycin levels in conjunctival sac (Cs))

(PENICILLIN, metab.

conjunctival sac (Cs))

(NEOMYCIN, metab.

same)

KOLCAVA, M.; VENCLIK, H.

Production of toxins of pyogenic staphylococci isolated in otitis.
Cesk. otolaryng. 12 no.1;26-30 F '63.

1. Otolaryngologické oddělení krajské nemocnice s poliklinikou v
Českých Budějovicích, přednosta MUDr. H. Venclík — Mikrobiologické
oddělení krajské nemocnice s poliklinikou v Českých Budějovicích, přednosta
MUDr. Vl. Potužník.

(STAPHYLOCOCCAL INFECTIONS) (ENDOTOXINS) (OTITIS)

KOLOHAK, N., inzh.

Repairing hydraulic drives of the pick-up and dumping apparatus
of roller mills. Muk.-elev.prom. 26 no.2:25-26 F '60.
(MIRA 13:6)

1. Magnitogorskaya mel'nitsa.
(Grain-milling machinery--Maintenance and repair)

PUSHKAREV, A.; KOLCHAK, N., inzh.

Use of antifriction bearings in the drive of sifters. Muk.-
elev, prom. 28 no.1:23-24 Ja '62. (MIRA 16:7)

1. Zamestitel' glavnogo inzhenera Yaroslavskoy mel'nitsy
No.1 (for Pushkarev). 2. Magnitogorskaya mel'nitsa No.10
(for Kolchak).

(Sieves) (Bearings(Machinery))

KOLCHAKOV, K.; VENKOV, L.

Method of producing labeled protein by means of radioactive isotopes of silver. Dokl. Bolg. akad. nauk 18 no.3:219-222 '65

1. Submitted on October 17, 1964.

02125-67

ACC NR: AP6035982

SOURCE CODE: BU/0011/65/018/003/0219/0222

KOLCHAKOV, K.; VENKOV, L., Central Laboratory on Problems of Regeneration,
Bulgarian Academy of Sciences; Department of Biochemistry, Higher Medical
Institute, Sofia

"Method of Producing Labeled Protein by Means of Radioactive Isotopes of Silver"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 18, No 3, 1965, pp 219-222

Abstract: [English article] In the past few years proteins labeled with radioactive isotopes have found wide application in biochemical and clinical laboratory methods of research. Radioactive isotopes of iodine I^{131} and I^{132} , are used almost exclusively for that purpose. However, with an advanced degree of iodization there sets in a negative nitroprusside reaction, reduced colloidal stability, and a minor change in the angle of tilt of the polarized light. Viscosity is heightened, which is ascribed to an increase in the molecule asymmetry (O. V. Lobschenskaya, L. A. Tsaryuk, Ukr. Biokhim. Zh., 31, 1959, 338). Iodized protein contains about 5% free iodine. Since free iodine and protein-bound iodine have different rates of metabolism, in quantitative experiments the behavior of iodized protein in the organism is masked by the free iodine. It has also been established that iodoprotein bonds are unstable (R. Pitt-Rivers, Biochem. J., 43, 1948, 223). The use of iodized protein in experiments which do not aim at studying the functions of the thyroid gland require its blocking with potassium iodide. In some cases this is undesirable.

Card 1/2

Z 02125-67

ACC NR: AP6035982

In order to avoid some of the defects of iodized protein, the authors worked out a method for marking protein substances with radioactive isotopes of silver. Ag¹¹⁰ and Ag¹¹¹ proved to be most suitable for the purpose. The former, which has a half-life of 270 days, is advisable for tests in vitro and with animals, while the latter with a half-life of 7.6 days may be used for clinical purposes. This paper was presented by Corresponding Member BAN A. Spassov on 17 October 1964. Orig. art. has: 2 figures. [JPRS]

TOPIC TAGS: radioisotope, silver, tracer study, protein, iodine, biologic metabolism, thyroid gland, endocrinology

SUB CODE: 06, 07, 18 / SUBM DATE: 17Oct64 / ORIG REF: 001 / SOV REF: 001
OTH REF: 010

Card 2/2 *ll*

L 15616-66 EWA(j)/T/EWA(b)-2 JK

ACC NR: AP6008215

SOURCE CODE: BU/0011/65/018/004/0363/0364

AUTHOR: Kolchakov, K.; Kantardjief, V.

ORG: Department of Biochemistry, Department of Microbiology, Higher Medical
Institute, Sofia

35
B

TITLE: Immunological characteristics of silver-labeled proteins

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 4, 1965, 363-364

TOPIC TAGS: immunology, protein, radioisotope, tracer study, antibody, organo-
silver compound, antigen, serum

ABSTRACT: In a previous article by the same authors a method was suggested for obtaining proteins labeled with the radioactive isotopes of silver (Compt. rend. Acad. Bulg. Sci., 18, 1965, No. 3). The present paper contains the results of the tests made to find out whether a serum containing antibodies formed against human serum albumin will give the same titre with human serum albumin labeled with silver. Tests showed that the precipitation titre of the serum is not changed by the amount of silver

Card 1/2

2

L 15616-66

ACC NR: AP6008215

added to the antigen up to the ultimate concentration of silver of 20 atoms per molecules of albumin. The note concludes with a brief discussion of the results. The paper was submitted by A. Spasnov, Corresponding Member Bulgarian Academy of Sciences, 26 November 1964. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 008

TS
Card 2/2

S/020/60/132/05/61/069
B011/B002

AUTHORS: Sayev, G. K., Ilkov, At. T., Markov, K. Iv., Kolchakov, K. G.

TITLE: Fixation of $C^{14}O_2$ by Staphylococcus¹ Resistant to Penicillin

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 5,
pp. 1195-1196

TEXT: The evolution of staphylococci resistant to penicillin is stimulated by the latter. In these bacteria, penicillin is a growth factor which replaces thiamine. The authors studied the subject mentioned in the title in order to clarify the importance of biotin in the influence exerted by penicillin on the $C^{14}O_2$ fixation in the cell. Moreover, the relations existing between penicillin and biotin were to be compared. The object serving for the experiments was the (a) strain Staphylococcus aureus 671 (resistant to penicillin, penicillin acts as a promoter), (b) St. aureus 209 (sensitive to penicillin), and (c) a variant of b resistant to penicillin: St. aureus 209-P. The action of the substances investigated is not confirmed by reliable statistics in usual culture media. The authors therefore used 3-day old cultures in a vitamin-free culture

Card 1/3

Fixation of $C^{14}O_2$ by Staphylococci Resistant to Penicillin S/020/60/132/05/61/069
B011/B002

medium. It contains biotin, penicillin, and thiamine (final concentration 10^{-6} moles/l as well as 2 microcuries of $NaHC^{14}O_3$). Radioactivity was measured with a Geiger-Müller end-window counter. Table 1 shows the results which prove that in the strain 671, which is resistant to penicillin, the fixation of $C^{14}O_2$ is activated. A thiamine excess gives rise to decarboxylation, and the fixation of $C^{14}O_2$ drops, as compared with the control. Penicillin acts in a similar way as biotin, although it is weaker. With $O^{18}C$ there occurs no fixation of CO_2 . The variant 209, which is sensitive to penicillin, is reduced in $C^{14}O_2$ fixation due to penicillin. When adapting the strain to penicillin, the $C^{14}O_2$ fixation rises, like in the presence of biotin. The authors believe that in resistant staphylococci, penicillin serves as a growth factor, which, like biotin, influences the CO_2 fixation. It does not follow from the results obtained that penicillin or the factor arising from it is identical with biotin.

Card 2/3

KOLCHAKOV, M.

An efficient method for calculating arch bridges.

p. 12 (STROITELSTVO) Vol. 4, no. 8, 1957,
Sofia, Bulgaria

SO: Monthly Index of East European Accessions (ERAI) LC, Vol. 7, No. 3,
March 1958

KOLCHAKOV, M.

"Bridge -frame system, suitable for ground on clay."

STROITELSTVO: Vol. 6, No. 4, 1959; Sofia, Bulgaria

Monthly list of EAST EUROPEAN ACCESSIONS INDEX (EEAI), Library of Congress,
Vol. 8, No. 8, August, 1959

Unclassified

KOLCHAKOV, M.

Differential equations of thin shallow orthotropic shells
with variable thickness. Doklady BAK 15 no.7:763-766 '62.

1. Predstavleno otl.-korr. D.Velevyn [Velez, D.].

NIKOLOV, T.; KOLCHAKOV, K.

Percuprimetric titration of proteins before and after ultraviolet irradiation. Nauch. tr. vissh. med. inst. Sofia 40 no.5:37-41 '61.

1. Predstaveno ot prof. B. Keichev, rukovoditel na katedrata po biokhimiia.

(PROTEINS chem) (ULTRAVIOLET RAYS)

SOLODUNOV, A.M.; KOLCHANOV, B.A.

Reason for the establishment of check points for a.c. powered locomotives.
Elek. i tepl. tiaga 5 no.3:40-41 Mr '61. (MIRA 14:6)

1. Chlen initsiativnoy gruppy vneshtatnykh korrespondentov zhurnala
"Elektricheskaya i teplovoznaya tyaga", master elektromashinnogo tsekha,
depo Krasnoyarsk (for Solodunov). 2. Master tsekha pod'yemnochnogo
remonta, depo Krasnoyarsk (for Kolchanov).
(Electric locomotives--Testing)

SOLODUNOV, A.M., master; GARATS, V.N., starshiy inzh.; KOLCHANOV,
B.A., master

Special features in the maintenance of the mechanical section
of the N60 electric locomotive. Elek. i tepl. tyaga 5 no.8:
33-35 Ag '61. (MIRA 14:9)

1. Chlen initsiativnoy gruppy vneshtatnykh korrespondentov
zhurnala "Elektricheskaya i teplovoznaya tyaga" (for Solodunov).
(Electric locomotives)

KRASHENINNIKOV, Yevgeniy Mikhaylovich; FREYNDLING, Aleksandr
Fedorovich; SHUBIN, Arkadiy Dmitriyevich; KOLCHANOV,
Boris Dmitriyevich; KOBZAB', Yevgeniy Porfir'yevich;
PANKRASHOV, A.P., Fed.; SHEVCHENKO, L.V., tekhn.red.

[Maintenance of machines at lumbering enterprises]
Tekhnicheskoe obsluzhivanie mashin na lesozagotovitel'-
nykh predpriyatiyakh. Pod red. E.M.Krasheninnikova.
Petrozavodsk, Karel'skoe knizhnoe izd-vo, 1963. 257 p.
(MIRA 16:10)

(Karelia--Lumbering--Machinery)

KOLCHANOV, B.D.

Introduce in the production circular saws with bits. Der. prom. 12 no.11;
18-19 N '63. (MIRA 17:1)

KOLCHANOV, Mikhail Mikhaylovich; GLADKOV, N., otv. red.; BUGROVA, L.,
red.izd-va; LEBEDEV, A., tekhn. red.

[Determining insurance compensation for agricultural crops]
Opredelenie strakhovogo vozmeshcheniia po sel'skokhoziai-
stvennym kul'turam. Izd.2., perer. i dop. Moskva, Gosfin-
izdat, 1963. 151 p. (MIRA 17:2)

L 13222-63 ARG/SPR/ENG(s)-2/EMP(r)/ENT(d)/EWA(b)/EWT(m)/EDS/FCG(k)/FBD/
FBO/FGS AFFTC/APGC/RPL Pv-4/Pv-4/Ps-4 E4/TT/BW/WW/JW

ACCESSION NR: AP3004732

S/0147/63/000/002/0134/0138

AUTHOR: Kolchanov, P. A.

TITLE: The selection of parameters for a multistage rocket ¹³

SOURCE: IVUZ. Aviat. tekhnika, no. 2, 1963, 134-138

TOPIC TAGS: multistage-rocket parameter, fuel distribution, maximum payload, multistage rocket

ABSTRACT: The problem of calculating the optimum distribution of fuel and thrust in the stages of a multistage rocket is considered on the basis of Ver-tregt's concepts. The general solution is formulated as the problem of deter-mining values for the mass ratio of the subrocket 1 ($r_1 = (G_1 - G_{1f})/G_1$, where G_1 is the mass of subrocket 1, and G_{1f} is the mass of the propellant in the "1"th stage) and the excess mass of the subrocket 1 (n_1) which give a maximum overall payload ratio (P) at a given terminal rocket velocity. It is shown that by use of the Lagrange multiplier technique, r_1 and n_1 can be analytically de-termined for each stage. However, this method is cumbersome, and a numerical method

Card 1/12

L 13222-63

ACCESSION NR: AP3004732

was therefore developed which does not use a fixed terminal velocity but uses relationships between the rocket parameters and a variable terminal velocity. A two-stage rocket is calculated as an example. One stage is liquid propelled and has a structural mass coefficient β of 0.05, a power plant mass coefficient γ of 0.015, and a gas exhaust velocity v of 3000 m/sec. The other stage is a nuclear rocket with hydrogen as the working substance and has $\beta = 0.15$, $\gamma = 0.05$, and $v = 8000$ m/sec. The relationship between n and r , the velocity increment, and the payload ratio was calculated for each stage by use of the given formulas. Then P/λ (λ is the Lagrange multiplier) was obtained for both stages. The final result (see Fig. 1 of Enclosure) shows that for a terminal rocket velocity of less than 4750 m/sec a single-stage nuclear rocket is optimum. Higher velocities (up to 9000 m/sec) can be obtained with a second liquid-propelled stage. At velocities exceeding 9000 m/sec, the overall payload ratio decreases sharply. This calculation procedure can be used for arbitrary stage numbers, design coefficients, and exhaust velocities. Orig. art. has: 13 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 04Jul61

DATE ACQ: 06Sep63

ENCL: 01

SUB CODE: AS, PR

NO REF SOV: 002

OTHER: 004

Card 2/12

ACC NR: AP6029035

SOURCE CODE: UR/0413/66/000/014/0051/0052

INVENTORS: Kolchanov, V. A.; Yefroymovich, Yu. Ye.; Vinogradov, V. M.; Kotikov, A. N.; Pirozhnikov, V. Ye.; Malinenko, M. A.; Gunin, I. V.

ORG: none

TITLE: A device for controlling the electric system of an electric slag remelting installation. Class 21, No. 183847 [announced by Central Laboratory of Automation (Tsentral'naya laboratoriya avtomatiki)]

SOURCE: Izobret prom obras tov zn, no. 14, 1966, 51-52

TOPIC TAGS: slag, smelting furnace, metallurgic furnace, electric equipment, automatic control system

ABSTRACT: This Author Certificate presents a device for controlling the electric system of an electric slag remelting installation based on the Author Certificate No. 139032. The design increases the reliability of the device because of the noncontact readout of the specification. The program mechanism includes a removable program matrix and a secondary matrix made from semiconductor diodes (see Fig. 1). These matrices are electrically connected through a comparison relay. The contacts of this relay are connected with the coil of the step scanner of the program matrix. The program matrix controls (through the relay system) the multiwinding current

Card 1/2

UDC: 621.365.2.078

ACC NR: AP6029095

SOURCE CODE: UR/0118/66/000/006/0007/0009

AUTHOR: Pirozhnikov, V. Ye. (Engineer); Kolchanov, V. A. (Engineer);
Malinenko, M. A. (Engineer)

ORG: none

TITLE: Program control of electrosag metal remelting process

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 6, 1966, 7-9

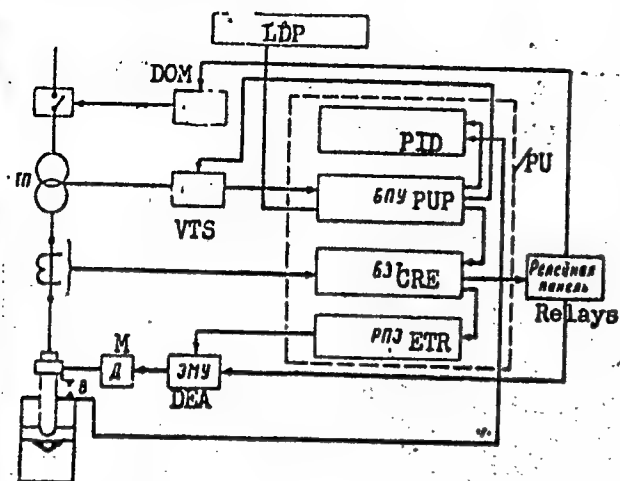
TOPIC TAGS: electrosag melting, program control, industrial automation

ABSTRACT: Developed in the Central Laboratory of Automatics (TsLA) jointly with some workers of "Elektrostal" plant im. I. F. Tevosyan, the new program-control equipment includes (see figure): a program unit (PU) which comprises a process-interval duration unit (PID), a program unit proper (PUP), a current reference input element (CRE), and an electrode-travel regulator (ETR); a dynamoelectric amplifier (DEA); electrode-moving motor (M); a voltage-tap switch (VTS); a h-v disconnect-switch operating mechanism (DOM); and a luminous display panel (LDP). Functioning of the program control is explained and a simplified electrical circuit is presented.

Card 1/2

UDC: 66.065.5:62-503.55

ACC NR: AP6029095



The above system operated for one year on three remelting installations increased productivity by 6-8% and reduced power consumption by 80 kwh/ton, Orig. art. has: 2 figures.

SUB CODE: 13, 09 / SUBM DATE: none

Card 2/2

YEFROYMOVICH, Yu.Ye.; MARUYNUSHKIN, A.M.; TSUKANOV, V.P.; SHIKOV, I.P.;
NIKONOV, A.V.; KABLUKOVSKIY, A.F.; KOTIKOV, A.N.; KOLCHANOV, V.A.;
VINOGRADOV, V.M.; GENISHT, Ye.S.

VU-5086 computer and high-speed electronic automatic controller for
regulating power supply to electric arc furnaces. Prem. energ. 18 no.7;
7-8 J1 '63. (MIRA 16:9)

(Electric furnaces)

RYZHIKOV, D.I.; KOLCHAKOV, V.A.

Studying the high-temperature reduction of molten ores by
methane. Izv. Akad. Nauk SSSR, Ser. Khim., 1964, no. 5,
178-182. 4p.

(MIRA 1964)

- BERSENEV, V.S.; Prinimali uchastiye: ZINEVICH, V.D.; MOROZOV, V.I.;
MUKHACHEV, V.S.; KAPRALOV, Ye.P.; KOLCHANOV, V.D.; BOGDANOV, A.V.;
OBUKHOVICH, I.I.; OSTROZHINSKIY, A.I.; KHROMOV, M.I.; SIVUCHUB, A.A.

Breaking a solid body with a high-pressure water jet. Zap. LGI
41 no.1:44-51 '59. (MIRA 16:5)
(Jets--Fluid dynamics)

GERONT'YEV, V.I.; KOLCHANOV, V.D.

Study of the compactness of free non-submerged jets. Zap. LGI
41 no.1:76-80 '59. (MIRA 16:5)

(Jets--Fluid dynamics)

KOLCHANOV, V.D.; SEVERIN, L.P.

Breaking materials with a rotating jet of water. Zap. LGI 41 no.1:
81-87 '59. (MIRA 16:5)
(Jets--Fluid dynamics) (Hydraulic mining)

KOLCHANOV, V.D., starshiy prepodavatel'; SIGAYEV, Ye.A., starshiy prepodavatel'

Devices for studying the dynamics of a hydraulic giant jet. Sbor.
nauch. trud. Kem. gor. inst. no.5:11-16 '64.

1. Gorno-elektromekhanicheskiy fakul'tet Kemerovskogo gornogo
instituta. (MIRA 18:3)

KOLCHANOV, V.I.

Agrochemical constants of some landforms in Kirov Province. Izv. Vses.
geog. ob-vn 97 no.4:319-323 J1-Ag '65.

(MIRA 18:8)

KOLCHANOV, Mikhail Mikhaylovich; GLADKOV, N., red.; SHATROVA, T.,
Fed. izd-va; TELEGINA, T., tekhn. red.

[Determining insurance compensation on agricultural crops]
Opredelenie strakhovogo vozmeshchenia po sel'skokhoziaistven-
nym kul'turam. Moskva, Gosfinizdat, 1961. 126 p.
(MIRA 15:7)

(Insurance, Agricultural)

YERERSKIY, L.; KOLCHANOV, P., redaktor; SHITIKOVA, Ye., redaktor; LEBEDOV, A.,
tekhnicheskii redaktor

[Issuing credit on the basis of documents for goods in transit]
Kreditovanie postavshchikov pod raschetnye dokumenty v puti. Mo-
skva, Gosfinizdat, 1955. 46 p. (MIRA 9:3)
(Credit)

88621

10-6200
26.3110

8/147/60/000/004/013/016
E031/E235

AUTHOR:

Kolchanov, R. A., (Moscow)

TITLE:

The Calculation of Required Thrusts Taking Account of Compressibility

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy,
Aviatsionnaya tekhnika, 1960, No. 4, pp. 126-131

TEXT:

The fundamental method of aerodynamic calculations for subsonic velocities is the thrust method in the form proposed by N. Ye. Zhukovskiy according to which a force triangle is constructed whose sides represent the thrust, aerodynamic force and weight coefficients. At supersonic velocities a simplified method or a graphical method with successive approximations as put forward by I. V. Ostoslavskiy (Refs. 1, 2) is used, since Zhukovskiy's method cannot be used. In this paper an attempt is made to re-formulate the method so that it can be used in these cases. Since to each Mach number there corresponds a polar, at each height the Mach number and one of the angles α (the angle of attack) or θ (the angle of inclination of the trajectory) must be given. The construction of the corresponding hodographs in the two cases is described. The graphical method can be given on Card 1/ 2

88621

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EO31/E235

The Calculation of Required Thrusts Taking Account of Compress-
ibility

analytical formulation starting from the known approximate analytical expression for the polar and solving the equation of the straight line passing through the point $x = -C_g \sin \theta$, $y = C_g \cos \theta$ (C_g the weight coefficient) and tangential to the envelope for the angle α . It can be shown that this equation has always one real root only, which when found makes it possible to determine the thrust coefficient. If α is given, the equation can be solved for θ . The graphical method can be extended to the case of transient motion, and an indication of how this is achieved is given. There are 3 figures and 2 Soviet references.

SUBMITTED: March 28, 1960

Card 2/2

KOICHANOV, V.

Consolidation of mines. Mast. ugl. no.10:7 0 '59 (MIRA 13:3)
(Chelyabinsk Basin--Coal mines and mining)

MURAV'YEV, Vasil'y Petrovich; DMITRIYEV, Gennadiy Andreyevich;
FILATOV, Mikhail Nikolayevich; SAFOKHIN, Mikhail Samsonovich;
GOL'DBERG, Leonid Abramovich; KRUT'KO, Mariya Vladimirovna;
NECHAYEV, Vadim Ivanovich; KOLCHANOV, Vitaliy Dmitriyevich;
BESSONOV, Yevgeniy Aleksandrovich; OBLONSKIY, Ivan Yefimovich;
KORABLEV, A.A., otv. red.; ABRAMOV, V.I., red. izd-va;
PROZOROVSKAYA, V.L., tekhn. red.

[Automation in the coal mining industry] Avtomatizatsiya v
ugol'noi promyshlennosti. [B] V.P.Murav'ov i dr. Moskva,
Gosgortekhnizdat, 1962. 258 p. (MIRA 15:10)
(Coal mines and mining) (Automation)

YEGORYAN, V.L. [translator]; ZHABREV, I.P. [translator]; KOLCHANOV, V.P.
[translator]; MOISEYENVA, V.M. [translator]; PETRENKO, V.S.
[translator]; PETRENKO, I.M. [translator]; STRUKOV, N.D.
[translator]; TITOVA, N.A. [translator]; KHAIN, V.Ye., red.;
ROMANOVICH, G.P., red.; REZOUKHOVA, A.O., tekhn.red.

[Present-day studies of the tectonics of foreign countries]
Voprosy sovremennoi zarubezhnoi tektoniki; sbornik statei.
Moskva, Izd-vo inostr.lit-ry, 1960. 498 p. Translated articles.
(MIRA 13:12)

(Geology, Structural)

BAUM, V.A., doktor tekhn.nauk, otv.red.; TOLSTOV, Yu.G., doktor tekhn.
nauk, red.; PETROV, V.I., kand.tekhn.nauk, red.; KOLCHANOVA,
I.P., kand.tekhn.nauk, red.; LIBKIND, M.S., kand.tekhn.nauk,
red.; NABOKO, I.M., inzh., red.; BABURIN, B.L., inzh., red.;
BOL'SHOV, N.D., red.; BURAKOV, S.Ye., tekhn.red.

[Proceedings of the Fifth Conference of Young Scientists]
Trudy V konferentsii molodykh uchenykh. Moskva, Akad.nauk
SSSR, Energ.in-t. Vol.1. 1960. 91 p. Vol.2. 1960. 79 p.
(MIRA 14:3)

1. Konferentsiya molodykh uchenykh. 5th.
(Electric power distribution)

SARISHVILI, N.G.; KOLCHANOVA, G.S. [Kolchanova, H.S.]; SEMENOV, V.F.

New technological flow sheets for the manufacture of wine yeast
on continuous production lines. Khar.prom. no.2:8-11 Ap-Je '62.
(MIRA #5:9)

1. Kiyevskiy zavod shampanskikh vin.
(Ukraine—Champagne (Wine)) (Fermentation)

DOLINSKIY, Yu.I., inzh.; BAKHAREV, V.M., inzh.; ALEKSEYEV, V.N.,
arkhitektor; KOLCHANOVA, L.I., arkhitektor

Crushed colored glass finish of keramsit-concrete wall panels.
Stroi. mat. 10 no.3:18-20 Mr '64. (MIRA 17:6)

L 10580-66 EWT(m)/EWP(t)/EWP(s) IJP(c) JD

ACC NR: AP5025400

SOURCE CODE: UR/0101/65/007/010/3118/3120

AUTHOR: Kolchanova, N. M.; Talalakin, G. N.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad (Fiziko-tekhnicheskii institut AN SSSR)

TITLE: Anomalous behavior of mobility in oxygen-doped gallium arsenide

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 3118-3120

TOPIC TAGS: single crystal, gallium arsenide, semiconductor research, Hall mobility

ABSTRACT: The authors examine single crystal specimens of oxygen-doped gallium arsenide with a mobility of $4000 \text{ cm}^2/\text{v}\cdot\text{sec}$. A slight variation in the Hall constant was observed with reduction in temperature for electron concentrations of more than $5 \cdot 10^{15} \text{ cm}^{-3}$. A distinguishing feature of crystals with low current carrier mobility is an increase in mobility with temperature reduction between 300 and 80°K. This type of mobility behavior is characteristic for GaAs of higher purity and with higher current carrier mobility, which is due to the small contribution made by impurity ions to electron scattering. An explanation of this anomalous phenomenon is given based on the assumption that the specimens contain a special type of scattering centers associated with nonhomogeneous distribution of the dopant in the crystal in addition to the usual scattering mechanisms. In conclusion, the authors thank D. N. Nasledov for his interest in the work. Orig. art. has: 1 figure, 1 table, 2 formulas.

SUB CODE: 20/ SUBM DATE: 06May65/ ORIG REF: 002/ OTH REF: 009

Card 1/1 HW

L 39778-66 ENT(m) JD/GD-2/JG

ACC NR: AF6012468

SOURCE CODE: UR/0181/66/008/004/1097/1104

AUTHOR: Kolchanova, N. M.; Nasledov, D. N.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-
tekhnicheskiy institut AN SSSR)

TITLE: Temperature dependence of the carrier lifetime in n-GaAs

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1097-1104 27 27

TOPIC TAGS: gallium arsenide, semiconductor carrier, carrier lifetime, photoconduc-
tivity, photomagnetic effect, photo emf, temperature dependence, forbidden band

ABSTRACT: In view of the interest in the photoelectric properties of GaAs as a suitable light-source material, the authors investigated the temperature dependence of the photoconductivity and the photomagnetic effect, and the spectral distribution of the photo-emf and its temperature variation, in the temperature interval 80-300K. The temperature dependence of the carrier lifetime was determined then from these experiments. The measured GaAs single crystals were of the n-type and were obtained by zone melting without special doping. The electric properties of the crystals were determined in earlier experiments (FTT v. 3, 198, 1961). The surface finishing of the crystals prior to the measurement of the photoelectric properties was by a method described previously (FTT v. 5, 3259, 1963). The light was either monochromatic (780 nm) or in a spectrum ranging from 600-800 nm. With decreasing temperature (starting at room temperature), the lifetime of the majority carriers first increased and then became independent of the temperature, followed by a second increase at the

Card 1/2

L 39778-66

ACC NR: AF6012468

lowest temperatures. The lifetime of the minority carriers decreased with decreasing temperature. The lifetimes of the minority and majority carriers differed in magnitude, being 10^{-5} - 10^{-6} sec for the electrons and 10^{-8} sec for the holes. This great difference is attributed to the presence of traps of two types: adhesion levels and recombination centers. The anomalously sharp decrease of the hole lifetime is explained by using a theory which takes into account recombination on multiply charged centers. The adhesion centers are located in the lower part of the forbidden band, and the multiply charged levels for the recombination are located in the upper part. The diffusion length of the holes and the effective velocity of surface recombination are determined for two types of surface finish from the spectral distribution of the photoconductivity. The diffusion length ranges from 0.8-1.2 μ and agrees with the published data. The recombination rate was 10^4 - 10^5 cm/sec for chemically etched surfaces and one order of magnitude higher for mechanically polished surfaces. The results are interpreted from the point of view of the energy level scheme and the relative positions of the recombination, Fermi, and adhesion levels. Orig. art. has: 4 figures and 12 formulas.

SUB CODE: 20/ SUBM DATE: 17Aug65/ ORIG REF: 010/ OTH REF: 008

Card 2/2 MLP

KOLCHANOVA, T.B.
25422

Vykhody Nizhnego Proterozoya K Vostoku Ot Eniseyskogo Krzha. Sov. Geologiya,
No. 32, 1948, s. 64-66

SO: IE TOPIS NO. 3, 1948

KOTT, N.P.; KOLCHANOVA, Ye.V.

Prerequisite of successful work. Pgt' 1 put.khoz. 7 no.4:16 '63.
(MIRA 16:3)

1. Nachal'nik Kuvandykskoy distantsei puti, Yuzhno-Ural'skoy dorogi (for Kott).
 2. Starshiy normirovshchik, Kuvandykskaya distantiya puti, Yuzhno-Ural'skoy dorogi (for Kolchanova).
- (Railroads—Maintenance and repair)

GEL'FENBOYM, Moisey Shlemovich, KOLCHANSKAYA, N.A., red.;
MAMONTOVA, N.N., tekhn. red.

[Guide for the buyer of photographic supplies and photographic chemicals] Pokupateliu o fotomaterialakh i foto-khimikatakh. Moskva, Gostrogizdat, 1961. 81 p.

(MIRA 15:7)

(Photography—Equipment and supplies)

MEL'NIKOV, O.A., prof., otv.red.; OBUKHOV, A.M., red.; KOLCHANSKIY,
I.G., kand.fiz.-mat.nauk, red.; KUCHEROV, N.I., kand.fiz.-mat.
nauk, red.; BYSTROVA, N.V., kand.fiz.-mat.nauk, red.;
KALLISTRATOVA, M.A., red.; ZHUKOVA, L.N., red.; ZENDEL', M.Ye.,
tekhn.red.

[Transactions of the Conference on the Study of the Scintillation
of Stars] Trudy Soveshchaniia po issledovaniyu mertsaaniia svezd.
Moscow, Izd-vo Akad.nauk SSSR, 1959. 263 p. (MIRA 13:1)

1. Soveshchaniye po issledovaniyu mertsaaniya svezd. Moscow,
1958. 2. Chlen-korrespondent AN SSSR (for Obukhov).
(Stars--Scintillation--Congresses)

KOLCHEF, L.

BULGARIA / Laboratory Equipment. Apparatuses.

F

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67407.

Author : Kolchef L.

Inst : Not given.

Title : Procurement of Gas for Laboratory Burners by Carburation of Gasoline with the Simultaneous Ventilation of Laboratories.

Orig Pub: Parmatsiya (Bulg.), 1957, 7, No 6, 39-40.

Abstract: A carburation type gas generating installation that utilizes gasoline-air mixture and is capable of supplying gas to 5-10 laboratory burners is described. A fan which supplies air to the carburator of this installation, may be simultaneously utilized to provide the required ventilation to the laboratory quarters.

Card 1/1

40

KOLCHEMANOVA, A. YE.

AUTHORS: Glembotskiy, V.A. Kolchomanova, A. Ye., Plaksin, I. N.
and Rozenberg, L. D. (Moscow) 24-10-24/26

TITLE: On the possibility of applying ultrasonics for liberating mineral particles from the adsorbed reagent coatings during flotation beneficiation of minerals. (O vozmozhnosti primeneniya ul'trazvuka dlya osvobozhdeniya chastits mineralov ot adsorbtsionnykh pokrytiy reagentov pri flotatsionnom obogashchenii poleznykh iskopayemykh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.10, pp. 111-112. (USSR)

ABSTRACT: The authors investigated the effects of ultrasonics on a number of sulphide minerals (Ga, chalcopyrite, sphalerite, pyrite) of various Soviet origins. The crushed sulphides were subjected to flotation using xanthogenate and a foam forming agent in quantities ensuring complete removal of the minerals into the foam product which, after filtration, was transferred into a vessel and subjected to the effect of ultrasonics generated by means of a magnetostriction radiator. After irradiation with ultrasonics, the mineral was transferred into the flotation machine and subjected to flotation using a foam forming agent. Parallel tests

Card 1/2

SOV/24-58-7-11/36

AUTHORS: Glembotskiy, V. A., Kolchemanova, A. Ye. (Moscow)

TITLE: Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector (Vzaimodeystviye galenita s sobiratelem i yego flotatsiya v prisutstvii ionov tyazhelykh metallov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 7, pp 76-81 (USSR)

ABSTRACT: The reaction of a mineral with reagents of the collector in the presence of flotation becomes complicated due to formation of the surplus ions in the flotation pulp. This phenomenon should be considered in the cases such as the flotation of sulphuric minerals when the pulp becomes enriched with ions of heavy metals which take an active part with the reagents of the collector and with the surface of minerals. The experiments were carried out by the author where the effect of ions of the heavy metals (copper, lead, silver and bismuth introduced into the pulp as water-soluble salts) on the flotation of the galenite with xanthogenate was investigated. Also the effect of flotation of the galenite with the xanthogenates

Card 1/4

SOV/24-58-7-11/36

Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector

of heavy metals was compared with the usual method of water-soluble xanthogenates. The results are shown in the table on p 76 and in Figs 1 and 2. The columns in the table represent (from left to right), 1 - type of salt, 2 - foam extracted during ϵ_1 - 1 min, ϵ_4 - 4 min, ϵ_5 - total of 5 min in per cent; 3 - flotation with ethyl-xanthogenate of potash only, 4 - flotation with preliminary introduction of salts, 5 - flotation of introduction of salts at the same time as the feeding of the collector. The stoichiometric ratio of salt to ethyl-xanthogenate was 1:1 (but 3.6 to 3 for bismuth). Fig 1 illustrates the effect of the introduction of salts of lead (1), silver (2) and bismuth (3) into the pulp for flotation of the Sadon galenite. The input of the ethyl-xanthogenate of potash was 60 g/m. Fig 2 illustrates the above effect with the salt of zinc (1) and copper (2). The analysis of the results shows a decrease of both the foam extraction and the rate of flotation when the ions of salts were introduced to the collector. The decrease was more pronounced for salts of silver and bismuth, as is shown in Fig 4, where the flotation of the Sadon galenite with the ions of lead (1),

Card 2/4

SOV/24-58-7-11/36

Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector

copper (2), silver (3) and bismuth (4) is illustrated (input of the xanthogenate - 30 g/m, duration 5 min). When the metals are tabulated according to their effect on the flotation, the sequence zinc-lead-copper-silver-bismuth is obtained, which is identical to a similar sequence constructed by I. A. Kakovskiy in the order of their reduced solubility due to the presence of xanthogenates (p 80). It can be assumed that the non-soluble xanthogenate, when applied in flotation, acts as a typical source of ions. Thus the appearance of the ions in the presence of the xanthogenate of heavy metals can be shown as follows: the non-soluble $MeX \rightleftharpoons$ becomes

$MeX \rightleftharpoons Me^{+} + X^{-}$ when introduced into the solution. Further investigations were carried out in order to verify this theory. The xanthogenates of the above metals were obtained by means of mixing the solutions of the respective electrolytes with the

Card 3/4

SOV/24-58-7-11/36

Flotation in the Presence of Ions of Heavy Metals and the Reaction
of Galenite with the Collector

solution of the ethyl-xanthogenate. The drops of the mixture were studied under an electric microscope, giving 10 500 magnification. A photograph of a 80-magnified drop, taken after 20 minutes of mixing the ethyl-xanthogenate (0.004 g/l) with the nitrate of lead (0.017 g/l) is illustrated in Fig 3. The particles of the ethyl-xanthogenate of lead, seen in the photograph, have a diameter of 0.0001-0.0002 mm. These additional investigations showed that the ions of heavy metals affect both the surface of minerals and the composition of the pulp made of the non-soluble xanthogenates of a metal, thus causing a change in the conditions of reaction at the surface of minerals with the reagent, which in effect brings a decrease in the rate of foam extraction. There are 4 figures and 4 Soviet references.

SUBMITTED: March 28, 1957.

Card 4/4

SOV/180-59-3-3/43

AUTHORS: Glembotkiy, V.A., Kolchemanova, A.Ye. and
Pikkat-Ordynskaya, A.P. (Moscow)

TITLE: Looking for New Methods of Separating Collective
Flotation Concentrates

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Metallurgiya i toplivo, 1959, Nr 3, pp 13-19 (USSR)

ABSTRACT: This article is a report approved by a session of the
Uchenyy Sovet (Scientific Council) of the Institut
Gornogo dela (Mining Institute) AN SSSR (AS USSR) in
December 1958. The authors mention the promising
proposals of A.S.Konev and L.B. ~~Debrivaya~~, adopted at the
Leninogorskaya obogatitel'naya fabrika (Leninogorsk
Beneficiation Works) (Ref 1 and 2) for the separation of
collective lead-zinc concentrates. To extend the range
of application of collective flotation the authors
decided to study other possible methods. This has led
them to laboratory-scale studies of the stability of
the adsorbed layers of collector on particle surfaces
in relation to different factors. For this the mineral
suspension was treated for a given time with a collector
and then subjected to flotation under normal conditions.

Card 1/4

Looking for New Methods of Separating Collective Flotation
Concentrates

SOV/180-59-3-3/43

The product was exposed to the action of the factor being studied and again flotated; with complete destruction of the adsorbed layer hardly any flotation occurred. Abrasive factors were studied using quartz, which was mixed together with the mineral (galenite) in the flotation chamber (Fig 1 shows the flowsheet); the effectiveness depended on the origin of the mineral and the collector used. Quartz was found ineffective with a pyrite, a chalcopyrite and a sphalerite. Thermal disruption of the adsorbed layers was studied using hot water, steam or electric (induction or ordinary frequency) heating of the froth flotation product. Results for water at 100°C are shown as plots of mineral recovery in the second flotation against time of heating (Fig 2 and 3) for a galenite, sphalerite and pyrite with ethyl and amyl xanthates. The treatment was most effective with the galenite. Steam was less effective than hot water. Electric heating was effective for materials relatively insusceptible to hot water treatment; high-frequency heating heating in

Card 2/4

SOV/180-59-3-3/43

Looking for New Methods of Separating Collective Flotation Concentrates

experiments in which G.M.Dmitriyeva participated showed no advantages. To elucidate details of the adsorption layer disruption process special determinations were made of the rate and degrees of decomposition of xanthate solutions at elevated temperatures and also the quantity of xanthate leaving the mineral surface under the action of mechanical or thermal factors. Fig 5 shows plots of amount of undecomposed potassium ethyl xanthates against time for 30, 60, 80 and 100°C. Fig 6 shows plots of undecomposed ethyl, butyl and amyl xanthates after 30 minutes treatment against temperature. The authors conclude provisionally that with thermal decomposition of the adsorbed layer there is no appearance of free xanthate ions in the solutions: the stability of a freshly separated ion is considerably reduced. Since 1956, the authors have been working in collaboration with the laboratoriya ul'trazvuka (Ultrasonics Laboratory) (head L.D.Rozenberg) of the Akusticheskiy institut (Acoustics Institute) of the AN SSSR (AS USSR). A magnetostriction vibrator (frequency

Card 3/4

SOV/180-59-3-3/43

Looking for New Methods of Separating Collective Flotation
Concentrates

20 k Hertz, intensity 2 watt/cm²), was used on froth products of galenite, pyrite, spalerite, chalcopryrite, scheelite, calcite, beryl zircon, ilmenite and some other minerals, a chalcopryrite-galenite flotation product could be separated, the galenite being depressed. It is not clear in what form the xanthate is removed from the sulphide surface. It is doubtful if either the abrasive cavitation or temperature rises produced by the ultrasonic beam remove the xanthate. Adsorbed oleate layers on beryl and ilmenite were removed but in general such layers proved stable. Technical-economic calculations are said by the authors to be favourable to the use of ultrasonics. There are 6 figures, 1 table and 10 references, 8 of which are Soviet and 2 English.

SUBMITTED: January 29, 1959

Card 4/4

GLEBOVSKIY, V.A. (Moskva); KOLCHUKANOVA, A.Ye. (Moskva)

Effect of heavy metal ions on the interaction of zinc blende
and pyrite with molybdates in flotation. Izv. AN SSSR. Otd.
tekh. nauk. Met. i topl. no. 5: 200-206 8-0 '60. (MIRA 13:11)
(Flotation) (Sphalerite)

GLEMBOTSKIY, V.A., doktor tekhn.nauk; KOLCHEMANOVA, A.Ye., inzh.

Possibility of using an ultrasonic wave for breaking down layers of
flotation collectors on the surface of mineral particles. Trudy
Inst.gor.dela 6:32-37 '60. (MIRA 14:4)

(Flotation) (Ultrasonic waves—Industrial applications)

S/194/61/000/008/061/092
D201/D304

AUTHORS: Glembotskiy, V.A. and Kolchewanova, A.Ye.

TITLE: The possibility of using ultrasound for the disintegration of flotation layers of reagent-collectors at the surface of mineral particles

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 12, abstract 8 E84 (Nauchn. soobshch. In-t gorn. dela AN SSSR, 1960, 6, 32-37)

TEXT: The method of ultrasonic disintegration was examined for the adsorption layers of collectors formed at the surface of sulphide and non-sulphide minerals. The experiments were carried out at a frequency of 20 kc/s and intensity $\sim 2 \text{ W/cm}^2$. It was found that subjected for 60 sec. only, the galenite with grains 0.1-0.15 mm has its flotation capability substantially changed and after 3 minutes it loses it completely. The US has a good effect on pyrite and practically no effect on floated-off sphalerite and

Card 1/2



The possibility of using...

S/194/61/000/008/061/092
D201/D304

chalco pyrite which makes it possible to apply ultrasound for separating complex concentrates. In order to examine the effect of ultrasound, the influence of temperature on adsorption layers was analyzed in the range which take place in ultrasonic irradiation (30-60°C). It is shown that the temperature has practically no effect. All the other conditions being the same, the ultrasound has more effect on coarse-grained materials. Experiments were carried out to determine the optimum quantity of the collector required for subsequent ultrasonic processing. 1 figure. 5 tables. 2 references. [Abstracter's note: Complete translation]

Card 2/2

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GLEMBOTSKIY, V.A., doktor tekhn.nauk; KOLCHEMANOVA, A.Ye., inzh.

Possibility of using ultrasonics for breaking down layers
of flotation collectors on the surface of mineral particles.
Nauch.sooob.Inst.gor.dela 6:32-37 '60. (MIRA 15:1)
(Flotation)
(Ultrasonics—Industrial applications)

KOL'CHENKO, A. V.

"An Investigation of the Process of Operating Turbine Drills Under Complicated Drilling Conditions." Cand Tech Sci, Inst of Petroleum, Acad Sci, USSR, 9 Dec 54. (VM, 25 Nov 54)

Survey of Scientific and Technical Dissertations Defended by USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

KOL'CHENKO, A. V.

Subject : USSR/Mining AID P - 2735
 Card 1/1 Pub. 78 - 5/22
 Author : Kol'chenko, A. V.
 Title : Turbo drilling in complex conditions
 Periodical : Neft. khoz., 33, 7, 26-32, J1 1955
 Abstract : Analysed are turbo drillings in complicated conditions when the application of heavier drilling fluids which have greater content of solid phase, increased amount of coagulating ingredients and a decreased amount of free water is required. Formulae for calculating thurbo-drill characteristics in those conditions are presented. Tables, charts.
 Institution : None
 Submitted : No date

KOL'CHENKO, A.V. (Moskva)

Study of turbodrill abrasion wear caused by weighted clay mortar.

Izv.AN SSSR, Otd. tekhn. nauk no. 1:21-30 Ja '56.

(MLRA 9:5)

(Oil well drilling) (Mechanical wear)

KOL'CHENKO, A.V. (Moskva)

Turbine drilling by using post-turbine lowered pressure. Inv.AN
SSSR.Otd.tekh.nauk no.4:139-141 Ap '56. (MLRA 9:8)
(Boring) (Oil well drilling)

KOL'CHENKO, A.V., kand.tekhn.nauk; SILIN, A.A., inzhener.

Performance of rubber-metal supports. Vest.nash. 37 no.10:21-24
0 '57. (MIRA 10:11)

(Rubber goods--Testing)

KOL'CHENKO, A. V.

AUTHORS: Kol'chenko, A. V., Silin, A. A.,

20-4-22/60

TITLE: On the Method and the Law of the Friction of Rubber in Lubrications Within the Domain of High Speeds and Heavy Loads (O rezhime i zakone treniya reziny pri smazke v oblasti bol'shikh skorostey i nagruzok)

PERIODICAL: Doklady Akad. Nauk SSSR, 1957, Vol. 115, Nr 4, pp. 714-716 (USSR)

ABSTRACT: The apparatus used by the authors for the investigation of friction in an axle-rubber-metal bearing used in turbodrills is illustrated by a sketch. A rubberized spot was pressed against a disk rotating on the shaft of an electric motor. The load was of a hydraulic type. The friction torque was taken by a hydraulic donor. The lubrication and the cooling were applied by water. The formula for the calculation of the coefficient of friction is given. The dependence of the coefficient of friction on the rubbing speed in the case of water lubrication and high normal load is illustrated by a diagram. The rubbing coefficient decreases with increasing rubbing speed first rapidly and then slower. A compact layer of the lubricant is supposed to exist, but due to the small viscosity of water the roughness of the two surfaces chafing each other also exerts an influence. But nevertheless these roughnesses do not lead to a rupture of the lubricating layer,

Card 1/3

On the Method and the Law of the Friction of Rubber in Lubri- 20-4-22/60
cations Within the Domain of High Speeds and Big Loads.

for only vertical deformations of the rubber layer take place and part of the friction energy is also consumed in this. By this very fact may be explained the somewhat higher coefficient of the friction of liquid. With increasing rubbing speed the lubricating layer becomes thicker and the coefficient of friction decreases to the value common for the liquid friction. Further diagrams illustrate the dependence of the specific frictional force on the normal load and the dependence of the sliding coefficients on the normal load for sufficient and for insufficient lubrication. In sufficient lubrications the friction up to 60 kg/cm^2 satisfies the formula by Thirion and Denny and in insufficient lubrications it partially satisfies it. In big loads the coefficient of friction increases. There are 4 figures, 1 table and 8 references, 4 of which are Slavic.

Card 2/3

On the Method and the Law of the Friction of Rubber in Lubri-
cations Within the Domain of High Speeds and Heavy Loads.

20-4-22/60

ASSOCIATION: All-Union Scientific Research and Planning Institute for the
Boring of Mineral Oil Holes and Gas Holes. Petroleum Institute
AN USSR (Vsesoyuznyy nauchno-issledovatel'skiy i pro-
yektnyy institut po bureniyu neftyanykh i gazovykh skvazhin.
Institut nefti Akademii nauk SSSR)

PRESENTED: March 20, 1957, by P. A. Rebinder, academician

SUBMITTED: March 9, 1957

AVAILABLE: Library of Congress

Card 3/3

KOL'CHENKO, A. V.

with A. A. Silin "Study of Turbodrilling Performed Under Conditions of Low Pressure With Drilling Fluid Flowing Upstream"

Transactions of the Petroleum Institute, Acad. Sci. USSR, v. 11, Oil Field Industry, Moscow, Izd-vo AN SSSR, 1958. 346pp.